

BOJAR, Sandor

Where the Cordatic is made. Auto motor 15 no.23:4 of cover 6 D '62.

POLAND / Farm Animals. The Honeybee.

Q

Abs Jour: Ref Zhur-Biol., No 5, 1959, 21328.

Author : ~~Bojarczuk, Czeslaw~~; Zmarlicki, Cyprian.

Inst : Not given.

Title : The Work of the Experimental Station of Apiculture  
at Gorna Niwa in 1957.

Orig Pub: Pszczelarstvo, 1958, 9, No 3, 66-68.

Abstract: A new perspective strain 13 K has been bred. In experiments lasting 2 years and investigating the degree of the colonies' wax productivity after the main honey collection, it was established that stretching of honeycombs accompanied by simultaneous supplementary feeding with syrup does not have an effect upon the colony's condition. On low frames the bees built their honeycombs up to the lower planks, on high frames only up to 3/4 of their

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POLAND / Farm Animals. The Honeybee.

Q

. . Abs Jour: Ref Zhur-Biol., No 5, 1959, 21328.

Abstract: height. When two methods of multiplying bees are compared (early successive intervals and intervals after collection), the difference between them in terms of honey production is not significant, but with the former method the risk of swarming is greater. In colonies with a small number of drones (about 1000), their sexual activity was 5 times greater than in colonies with a large number of drones (about 3000). -- V. A. Kanzyuba.

Card 2/2

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BOJAROWICZ, Jan; Koba, Stanislaw

Achievements of the Health Service in the Region of Kielce  
during 20 years of the Polish People's Republic. Wiad. lek.  
18 no.21:Suppl.:1-3 15 N ' 65.

BOJARSKA, Barbara

Therapeutic use of bromine. Polski tygod.lek. 10 no.15:491-495  
12 Apr 55.

1. Z Oddziału Wewnętrznego (IV) Szpitala Miejskiego nr 2 w War-  
szawie: ordynator: prof. dr nauk medycznych Witold Orlowski. W-wa,  
Targowa 84 m. 14.

(BROMINE, therapeutic use)

POLAND/Optics - Luminescence.

K

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28449

Author : Bojarski, C.

Inst : ~~\_\_\_\_\_~~

Title : On the Temperature Dependence of the Fundamental Polarization

Orig Pub : Bull. Acad. polon. sci. Ser. sci. math., astron. et phys., 1958, 6, No 11, 713-717, LVI

Abstract : The formula obtained by Jablonski for the temperature dependence of the polarization of luminescence of molecules in solid and viscous solutions is investigated, with account of the polarization introduced by the presence of torsional oscillations of the radiating molecule near the principal axis of its inertia:

$$P'_P = P_P \left[ 1 - (6 - 2P_P) \frac{h}{I\omega} \left( \frac{1}{2} - \frac{kT}{h\omega} \right) \right]$$

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POLAND/Optics - Luminescence.

K

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28449

where  $P_p$  is the principal polarization  $P'_p$  is the polarization with allowance of the depolarizing factors,  $I$  the moment of inertia of the molecule, and  $\omega$  the angular frequency of the torsional oscillations. By mathematical transformations and introducing several physical assumptions, the author represents the formula in a more general form

$$\frac{1}{P'_p} - \frac{1}{3} = \left( \frac{1}{P_p} - \frac{1}{3} \right) \cdot \frac{1}{(B \times T - C)^2},$$

where  $B = 3k/I\omega^2$  and  $C = 1 - 3h/2I\omega$  under the assumption that  $h\omega \ll kT$ . Verification of the formula against the result of the measurements of the polarization of luminescence of benzene and glycerine has shown that it is sufficiently accurately satisfied over a wide range of temperatures. The applicability

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- POLAND/Optics - Physical Optics.

K

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28449

of the obtained dependence is limited to the region of small values of depolarization (i.e., small amplitudes of torsional vibrations). Under this condition it is possible to consider the oscillations about the three axes of inertia to be mutually independent. -- A.V. Shablyn

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POLAND/Optics - Physical Optics.

K

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28451  
Author : Bojarski, C.  
Inst : Edansk Technical University, Poland  
Title : Note on the Theory of Self Depolarization of Photo-  
luminescent Solutions  
Orig Pub : Bull. Acad. Polon. sci. Ser. sci. math., astron. et  
phys., 1958, 6, No 11, 719-725, LVI  
Abstract : From the general expression for the dependence of  
the degree of polarization of fluorescence on the  
number of molecules per cubic centimeters of solu-  
tion, given previously by Jablonski (Referat Zhur  
Fizika, 1957, No 6, 15650; 1956, No 2, 5325) a sim-  
pler formula is obtained. This formula is in good  
agreement with the experimental results of Feofilov

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POLAND/Optics - Physical Optics.

K

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28451

and Sveshnikov (Journal of Experimental and Theoretical Physics, 1940, 10, 1372). Discrepancies between the theory and experiment, observed at large concentrations of dye, are ascribed to the presence of concentration extinction, which is not taken into account in the Jablonski theory. -- V.L. Yermalayev

Card 2/2

BOJARSKA, Z

Polish Technical Abst. 2383  
No. 4, 1953  
Metallurgy

(3) photo

Bojarska Z., Romer E., Ziolkowski Z. 621.386.1:620.179:535.33  
Cameras of Debye-Scherrer Type. X-Ray Powder

Proszkowe kamery rentgenograficzne typu Debye-Scherrer.  
(Prace Inst. Metalurgii No. 2), Katowice, 1952, PWT,  
7 pp., 12 figs.

The principal features of a good X-ray powder camera were reviewed. Many often contradictory, demands made upon the powder camera made it necessary to prepare a camera which could satisfy all the various needs. A description and technical data are given of a camera made to the authors design. The 114.6 mm. dia. camera is distinguished by: precise fitting of film, easy exchange of collimating tubes, simple and quick centering of test places and small ray dispersion in the camera.

POLAND/Physical Chemistry - Crystals.

B

Abs Jour : Ref Zhur Khimiya, No 19, 1959, 67189

Author : Bojarski, Z.

Inst : -

Title : Crystallographic Orientation of Iron Monocrystals  
Prepared by Critical Elongation and Recrystallization

Orig Pub : Prace inst. hutn., 1959, 11, No 1, 19-23

Abstract : Iron crystals averaging  $30 \times 10 \times 3 \text{ mm}^3$  were prepared by stressing (3.5-4.5%) and critical recrystallization. By means of reverse lauegrams [Laue diffraction pattern] it was shown that there is no favored orientation of individual crystals. This provides a basis for the assumption that the slip mechanism under the effect of small deformation forces is governed by secondary factors (admixture); this leads to the fact that the crystallization centers formed are not oriented with respect to the direction of force application. -- Author's summary

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1ST AND 2ND SUFFIXES																										3RD AND 4TH SUFFIXES																									
PROCESSES AND PROPERTIES INDEX																																																			
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<p>Chemotherapeutics. H. Bojaraka-Dahlig. <i>Przemysl chem.</i> 4, 40-3(1948).—The progress in the chemistry and manuf. of analgesics, anesthetics, antiseptics, antimalarials, and sulfonamides is reviewed. Frank Connet</p>																																																			
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BOJARSKA-DAHLIG, H.

Chemical Abst.  
Vol. 48 No. 3  
Feb. 10, 1954  
Organic Chemistry

Phenolic reactions of 3-hydroxypyridine. Halina Bojarska-Dahlig and Tadeusz Urbanski. *Prace Chem.* 1952, No. 1, 1-15 (English summary).—The authors undertook a systematic study of 3-hydroxypyridine (I), the prototype of vitamin B<sub>6</sub>. The NH<sub>2</sub> salt of I was obtained in 75.4% yield by adding dropwise 3 moles pyridine (b. 114-16°) to 355 cc. 65% aqum in presence of 5.5 g. Hg; the reactor, equipped with no condenser, was cooled with water, and then slowly brought to 280°, and kept at this temp. for 8 hrs. The reaction mixt. dissolved in water, neutralized, and concd. gave 308 g. NH<sub>2</sub> salt of I, crystals from water, m. 238-42°. The NH<sub>2</sub> salt (1 mole) fused with 9 moles KOH for 3 hrs. at 180° gave, after neutralization and extrn. with Me<sub>2</sub>CO, 80% of I, m. 124.5-5.0°. I was characterized by its salts: hydrochloride, b. 204-5°, b<sub>m</sub> 207.5-9.0°; picrate, m. 200-1.5° (from alc.); picolonate, C<sub>8</sub>H<sub>5</sub>ON.C<sub>6</sub>H<sub>4</sub>O<sub>3</sub>N<sub>3</sub>, m. 241.5-3.0° (from alc.); C<sub>8</sub>H<sub>5</sub>ON.HgCl<sub>2</sub>, m. 162.0-2.5° (from water); C<sub>8</sub>H<sub>5</sub>ON.Cu(OAc)<sub>2</sub>, m. 180-3° (from water). Carboxylation of I gave hydroxypicolinic acids. Dry Na salt of I and CO<sub>2</sub> heated rapidly to 280° at atm. pressure gave 8-8.6% 3-hydroxypicolinic acid (II). With slow heating less or no II was obtained. At 215-20° and 45 atm. the yield of II was 22%. Same conditions with K salt of I gave 24% 5-hydroxypicolinic acid (III) and 3% of II. I mixed with anhyd. K<sub>2</sub>CO<sub>3</sub> treated with CO<sub>2</sub> at 215° and 45 atm. for 8-9 hrs. gave III in yields which depended on the ratio of K<sub>2</sub>CO<sub>3</sub> to 3-hydroxypyridine: ratio 1.5 gave highest yield, 85-77%; ratio 1.0 gave 70%. HgCl<sub>2</sub> salt of II, crystals from water, m. above 220° (decompu.). II picrate m. 153.5-62.0° (from water). Me 3-hydroxypicolinate, m. 73-4°. Et 3-hydroxypicolinate (IV), b<sub>p</sub> 124°, b<sub>m</sub> 162-4°, b<sub>p</sub> 162°; HgCl<sub>2</sub> salt, m. 147-7.5° (from water), picrate, m. 118-10.5° (from water). HgCl<sub>2</sub> salt of III, m. 255-4° (from water). III picrate m. 265-0.5° (from water). Me 5-hydroxypicolinate m. 71.5-3.0° (from CHCl<sub>3</sub>); HgCl<sub>2</sub> salt, m. 193.5-4.5° (from water). Esters and ethers of I were prepd. and characterized. I and Ac<sub>2</sub>O gave 95% 3-pyridyl acetate, b. 92°, b<sub>m</sub> 137°; picrate, m. 155.5-7.0° (from alc.); picolonate, m. 169.5-7.5° (from alc.); HgCl<sub>2</sub> salt, m. 148-9° (from water). I and BzCl gave 81% 3-pyridyl benzoate, m. 50-50.5° (from alc.); picrate, m. 152-3° (from CHCl<sub>3</sub>); HgCl<sub>2</sub>

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2/2 *Handwritten notes*

salt, m. 168-70°. I and Me<sub>2</sub>SO<sub>2</sub> gave 92% 3-pyridyl Me  
 ether, b. 178-0°; HgCl<sub>2</sub> salt, m. 110-11°. K salt of I and  
 PhBr in presence of I and CuCO<sub>3</sub> gave 3-pyridyl Ph ether  
 (V). Best yields (55-65%) of V were obtained with I-PhBr  
 molar ratio of 1:1.5, 25% excess of I over its K salt, 2.5 g.  
 CuCO<sub>3</sub> per mole of K salt, and heating reaction mixt. for 3  
 hrs. at 150° and 16 hrs. at 180°. V hydrochloride m. 95-7°;  
 picrate, m. 130-2° (from alc.); picrolonate, m. 162-4°  
 (from alc.); HgCl<sub>2</sub> salt, m. 70-7.6° (from alc.). I coupled  
 with p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>N<sub>2</sub>Cl and the oxo compd. reduced with  
 SnCl<sub>2</sub> gave 51.5% 2-amino-3-hydroxypyridine, m. 163-7.5°  
 (from C<sub>6</sub>H<sub>5</sub>-alc.); picrate, m. 267°. Iodination of I in mild  
 alk. soln. gave 96% 2-iodo-3-hydroxypyridine, m. 195-6°  
 (from MeOH). I failed to undergo nitrosation, reaction  
 with CH<sub>3</sub>CO<sub>2</sub>H to give (3-pyridoxy)acetic acid, or the  
 Reimer-Tiemann reaction. C<sub>6</sub>H<sub>5</sub>N<sub>2</sub>Hg(NO<sub>2</sub>)<sub>2</sub> did not give  
 hydroxynitropyridine with HNO<sub>3</sub>. Janina R. Spencer

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BOJARSKA DAHLIG, HALINA

**V. Chemistry of pyridine. III.** On the carboxylation of 3-hydroxypyridine with carbon dioxide. Halina Bojarska-Dahlig and Tadeusz Urbanski (Inst. Technol., Warsaw, *Roczniki Chem.* 26, 158-67 (1952) (English summary); cf. *C.A.* 41, 5129d; 49, 1033e.—NH<sub>2</sub> 3-pyridinesulfonate (1 mole) was fused with KOH (9 moles) at 160° for 3 hrs., the melt dissolved in water, adjusted to a pH of about 10 with concd. HCl and then to about 4.5 with HOAc, and the resulting ppt. extd. with Me<sub>2</sub>CO to give 80% 3-hydroxypyridine (I), m. 124.5-5.0° (from water); *HgCl* salt, b<sub>p</sub> 201-5° and b<sub>p</sub> 207-9°; *picrate*, m. 200.0-1.5°; *picrolonate*, m. 241.5-3.0°; *HgCl<sub>2</sub>* complex, m. 162°; *Cu(OAc)<sub>2</sub>* complex, m. 199-9° (decomp.). After I as the Na salt (II) (4.75 g.) was heated to 220°, dry CO<sub>2</sub> (at atm. pressure) was introduced while the temp. was raised to 280° during 30 min., kept there 6-9 hrs., the mixt. dissolved in 25 ml. water, acidified with concd. HCl, filtered, neutralized with NaHCO<sub>3</sub>, the unreacted I filtered off, the filtrate acidified with HOAc, and 3-hydroxypicolinic acid (III) pptd. as the Cu salt (IV) from the boiling filtrate on satn. with NaOAc. IV was decompd. with H<sub>2</sub>S and two purifications were effected through IV to yield 0.65-0.69 g. III, m. 203-4°; *picrate*, m. 159-62°; *HgCl<sub>2</sub>* complex, m. 220° (decomp.). III (2.6 g.) as the Ag salt was refluxed 3.5 hrs. with 1.25 g. EtI in 21 ml. dry C<sub>6</sub>H<sub>6</sub>, the AgI filtered off, and the benzene soln. evapd. to yield 2.33 g. Et 3-hydroxypicolinate, b<sub>p</sub> 162° and b<sub>p</sub> 124°; *picrate*, m. 118-19°; *HgCl<sub>2</sub>* complex, m. 147°. Dry CO<sub>2</sub> was introduced to 1.9 g. I, as the Na salt, in a 50-ml. autoclave to a pressure of 40-45 atm., the whole heated for 1 hr. to 210-20°, kept at this temp. for 9 hrs., and the resulting mixt. worked up as

above yielded 0.62 g. III. I (1.9 g.) as the K salt was treated with CO<sub>2</sub> under pressure, the mixt. heated as above 8 hrs., the product dissolved in 20 ml. water, the soln. sepd. from carbonized substances by filtration, neutralized with concd. HCl, and acidified with HOAc to give crystals of 3-hydroxypicolinic acid (V). The filtrate was neutralized with NaHCO<sub>3</sub>, any sepd. I filtered off, and after acidifying with HOAc, the Cu salts of the 3-hydroxypicolinic acids were pptd. with Cu(OAc)<sub>2</sub> from hot soln. The Cu salts were decompd. with H<sub>2</sub>S and two fractions with different water solubilities were obtained. The less sol. fraction consisted of V (0.75 g.); the total yield of V was 24%, m. 257-8°; *picrate*, m. 265.0-6.5°; *HgCl<sub>2</sub>* complex, m. 253-4°; *Me ester*, m. 72-3°; *HgCl<sub>2</sub>* complex of *Me ester*, m. 194°. The more sol. fraction was III (3%). I (0.03 mole) was mixed with K<sub>2</sub>CO<sub>3</sub> (0.03 mole) and the mixt. treated in an autoclave with dry CO<sub>2</sub> (30 atm.) at 215° for 8.5 hrs. From the reaction product, worked up in the usual way, was obtained 2.73 g. V. When I and K<sub>2</sub>CO<sub>3</sub> were mixed in molar amts. and treated as above 70% V and 1% III were obtained. Larger excesses of K<sub>2</sub>CO<sub>3</sub> did not improve the yield of V.

T. T. Galkowski



BOJARSKA-DAHLIG, H.

POL.

of 3-h-  
Iodo derivatives of 3-hydroxypyridine. 1. Iodination of 5-hydroxypyridine. Albin Sefsky (Berl. Pharm. Ztg. 1930, 74, 27, 283-84) (English summary). Chem. Ber. Among iodo derivs. of pyridine, best known are the derivs. of 2- and 4-pyridone because of their use in x-ray diagnosis. For the iodination of 5-hydroxypyridine-2-carboxylic acid (melted) dissolved in a soln. of 0.125 mole NaOH in 30 ml. water, was heated to 100° and 11 g. iodine added over 10 min., was continued 1 hr. at 100°, after which the medium was changed 5 times by concd. HCl and 30% NaOH, after the last acidification of which, the suspension was satd. with SO<sub>2</sub>. The ppt. was filtered off after several hrs., washed with water, dried at 70°, 5.85 g. yellow material being obtained as 2,6-diiodo-3-hydroxypyridine (1). The crude product was also purified by filtering off the Na salt, decoloring, in eq. sol. by concd. HCl and one recrystn. from 75% MeOH. Method B: 3.14 g. 5-hydroxypyridine-2-carboxylic acid was dissolved in a soln. of 8.6 g. (0.03 mole) Na<sub>2</sub>CO<sub>3</sub> in 50 ml. water and heated to 100°. A soln. prepd. from 10.1 g. (0.0795 mole) iodine, 10.1 g. (0.061 mole) KI, and 20.2 ml. water was added dropwise over 30 min., with considerable frothing and gas evolution observed, after which the mixt. was heated at 100° for 1 hr., and SO<sub>2</sub> then passed in to conversion of pptn. After several hrs., the

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ppt. was filtered off, washed with water, and dried at 70°, to give 5.24 g. I, m. 200-1° (from MeOH). 5-Hydroxypyridine-2-carboxylic acid (1 g.), m. 206-7°, was dissolved in a soln. of 2.75 g. Na<sub>2</sub>CO<sub>3</sub>·10H<sub>2</sub>O in 27.5 ml. water and heated for 1 hr. at 100°. An almost quant. yield of unchanged acid resulted. I (0.01 mole) was dissolved in a soln. of 0.44 g. of NaOH in 10 ml. water, the soln. heated to 60°. 2 g. NaCl added, the mixt. cooled to 2°, the ppt. filtered off and washed with saline soln. to give the Na salt, m. 124.5-5.5° (from H<sub>2</sub>O). I (0.01 mole) was dissolved in a soln. of 1.155 g. diethanolamine in 10 ml. water, with gentle heating on a water bath. After concn. to 1/4 vol. and crystallizing on a pptd. salt, it was filtered off, washed with alc. and acetone, and the salt purified by crystn. from water. The I which pptd. due to hydrolysis was filtered off. The salt was a colorless, cryst. compd., m. 75-8°. Freshly-distd. Ac<sub>2</sub>O (0.138 mole) was added to 0.01 mole I, the mixt. heated to boiling for about 20 hrs., 40 ml. of water then added and the mixt. heated 15 min. at 49° to decomp. excess anhydride. After cooling, the ppt. was filtered off, washed with water, and dried at 50-60° to give 3.87 g. colorless, acetate ester, m. 120.5-1.5° (from 75% MeOH). I (0.01 mole) was dissolved in a mixt. of 17.5 ml. N NaOH and 3.47 ml. Me<sub>2</sub>SO, added in 3 portions with stirring. The ppt., which began to sep. after 10 min., was left at room temp. 5 hrs., ppt. filtered off, washed with water, and dried in vacuum desiccator over H<sub>2</sub>SO<sub>4</sub> to give 3.2 g. colorless cryst. Me ether, m. 100-1° (from 60% EtOH). I (0.01 mole) was mixed with 0.0387 mole of Cu(CN)<sub>2</sub>, 20 ml. of C<sub>2</sub>H<sub>5</sub>N added, and the mixt. heated to boiling for 6 hrs. The C<sub>2</sub>H<sub>5</sub>N was distd. off in vacuo and the residue exhd. with 70 ml. EtOH. Evapn. of latter left 3.25 g. of dark green residue which was heated 4 hrs. under reflux with 30 ml. 10% KOH, after which the soln. was acidified with concd. HOAc, filtered, and from the filtrate pptd. the grass-green Cu salt by adding Cu acetate.

*Halina Bogarska-Danil*

After several hrs. the salt was filtered off, washed with distd. water, suspended in water slightly acidified with HOAc and decomposed by H<sub>2</sub>S. After filtering off the CuS, the filtrate was concd. and left to crystallize to give 1.00 g. 3-hydroxypyridine-2,6-dicarboxylic acid (II). The crude product was crystd. from water to give colorless crystals, sol. in NaHCO<sub>3</sub> with CO<sub>2</sub> evolution, giving a blood-red color with FeSO<sub>4</sub>. On rapid heating, melting occurs with decarboxylation at 224°, and then the compd. melts again at about 250° with decarboxylation again. I was also obtained from 0.02 mole 2,6-bis(hydroxymethyl)-3-hydroxypyridine-HCl, m. 143-5°, dissolved in a mixt. of 100 ml. water and 43 ml. 10% Na<sub>2</sub>CO<sub>3</sub>, the soln. cooled to below 5° and a soln. of 0.035 mole KMnO<sub>4</sub> in 320 ml. water added at this temp. over 1.5 hrs., and then left at room temp. for 20 hrs. Mn oxides were then filtered off, washed with water, and the filtrate, after acidifying with concd. HOAc, concd. on a water bath to a vol. of about 100 ml. The Cu salt was then pptd. while hot with Cu acetate. After filtering and washing, the Cu salt was suspended in water, acidified with HOAc, and decompd. with H<sub>2</sub>S. After removal of CuS and concn. of the filtrate, 1.75 g. II was obtained, decarboxylating first at about 217°, then again at 250°. Mixed m.p. of II from the 2 methods gave no depression. II (0.1 g.) was heated 15 min. in 10 ml. boiling PhNO<sub>2</sub>, the mixt. cooled, the resulting ppt. filtered off, washed with EtOH, and dried at 80°, to give the monoacid, m. 265-7°. II (0.1 g.) was heated in a distg. flask for 1 hr. at 220-30°. The distillate, solidifying in the receiver, m. 123-4.5°; the m.p. was unchanged when mixed with 3-hydroxypyridine.

Clayton B. Holoway

BOJARSKA-DAHLIG, H.

"Diagnostic Contrast Media Derived from Pelvionic Acid." P. 266. (PRZEMYSŁ  
CHEMICZNY, Vol. 10, No. 5, May, 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,  
No. 1, Jan. 1955 Uncl.

*BUJARSKA 10/11/1977*  
POL.

Nitration of 4-pyridone nitrate. Halina Bolar.  
Publ. (Int. Pharm. Yearbook, 1977, 2, 1977).  
(1977 English summary). - 3-Nitro-4-pyridone nitrate is  
an unstable product in the nitration of 4-pyridone nitrate.  
Chester Plack / *AB* *gar*

BOJARSKA-DAHLIG, H.

Contrast media based on 3,5-diiodo-4-pyridine-N-acetic acid. Acta  
Poloniae pharm. 11 Suppl.:59-60 1955.

1. Instytut Farmaceutyczny w Warszawie.

(CONTRAST MEDIA,

3,5-diiodo-4-pyridine-N-acetic acid deriv.)

BOJARSKA-DAHLIG, HALINA

Poland/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61547

Author: Bojarska-Dahlig, Halina; Nantka-Namirski, Pawel

Institution: None

Title: Investigation of Derivatives of 4-hydroxypyridine. I. On Direct Carboxylation of 4-hydroxypyridine

Original

Periodical: Badania nad pochodnymi 4-hydroksypirydyny. I. O bezposrednim karboksylowanju 4-hydroksypirydyny, Roczn. chem., 1955, 29, No 4, 1007-1018; Polish

Abstract: Study of carboxylation of 4-hydroxypyridine (I). Na-salt of I (from 0.1 mol I and 0.1025 mol NaOH) heated within 1 hour to 190° in CO<sub>2</sub> atmosphere at 50 atm pressure, held 2 hours at 190°, heating to 220° within one hour, held 3 hours at 220°, ground with 25 ml water, acidified with concentrated HCl, filtered, made alkaline with 20% NaOH, acidified with CH<sub>3</sub>COOH, added at 80° a saturated solution of (CH<sub>3</sub>COO)<sub>2</sub>Cu, precipitate suspended in water and

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Poland, Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61547

Abstract: decomposed while heating with  $H_2S$ . Yield of 4-hydroxy-nicotinic acid (II) 52.5%, MP  $257^{\circ}$  (from water); compound with  $HgCl_2$ , MP  $213^{\circ}$  (from water); picrate, MP  $182-183^{\circ}$  (from water); methyl ester, MP  $221-222^{\circ}$  (from alcohol); ethyl ester, MP  $219-220^{\circ}$  (from alcohol); hydrazide does not melt at  $350^{\circ}$ ; amide, MP  $276-278^{\circ}$  (with decomposition, from water). Under the same conditions was treated with  $CO_2$  the K-salt of II, aqueous solution acidified with concentrated  $HCl$ , and there is obtained 4-hydroxy-pyridine-carboxylic acid-3,5 (III), yield 38.2%; dimethyl ester, MP  $236.5-238^{\circ}$  (decomposes, from 50%  $CH_3OH$ ); dihydrazide does not melt at  $350^{\circ}$  (from 80%  $CH_3OH$ ); diamide, MP  $320-323^{\circ}$  (decomposes, from 15%  $CH_3OH$ ). On carboxylation under analogous conditions of K-salt of I there is obtained II with yield of 33.9% and III, yield 3.8%. To 0.01 mol II and 0.015 mol soda in 43 ml water or to 0.01 mol III and 0.025 mol soda in 36 ml water added at  $100^{\circ}$  solution of 0.04 mol  $J_2$  and 5.08 g KJ in 10 ml water, held one hour at  $100^{\circ}$  and saturated with  $SO_2$ ; yield of 3,5-diiodo-4-hydroxypyridine, respectively, 75% and 81%, MP  $317-318^{\circ}$ .

Card 2/2



BOJARSKA-DAHLIG H.

3661

Bojarska-Dahlig H. 4-Pyridone-N-Acetic Acid and its Derivatives. 547.826.8.07

,Kwas 4-pirydono-N-octowy i jego pochodne". Roczniki Chemii (PAN). No. 1, 1955, pp. 119--128.

The author — in order to test their radioopaque properties — synthesized 4-pyridone-N-acetic acid and some of its derivatives, the most important of which are: — 3-nitro-5-iodo-4-pyridone-N-acetic acid, its ammonium and diethanolamine salts and its ethyl and n-octyl esters. 3-nitro-5-iodo-4-pyridone-N-acetic acid was reduced to the appropriate amine derivative, isolating it in the form of hydrochloride. The stable diazonium salt, which reacts with potassium iodide solution giving 3,5-diiodo-4-pyridone-N-acetic acid, was obtained from this compound.

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"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206020012-8

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000206020012-8"

BOJARSKA-DAHLIG, Halina

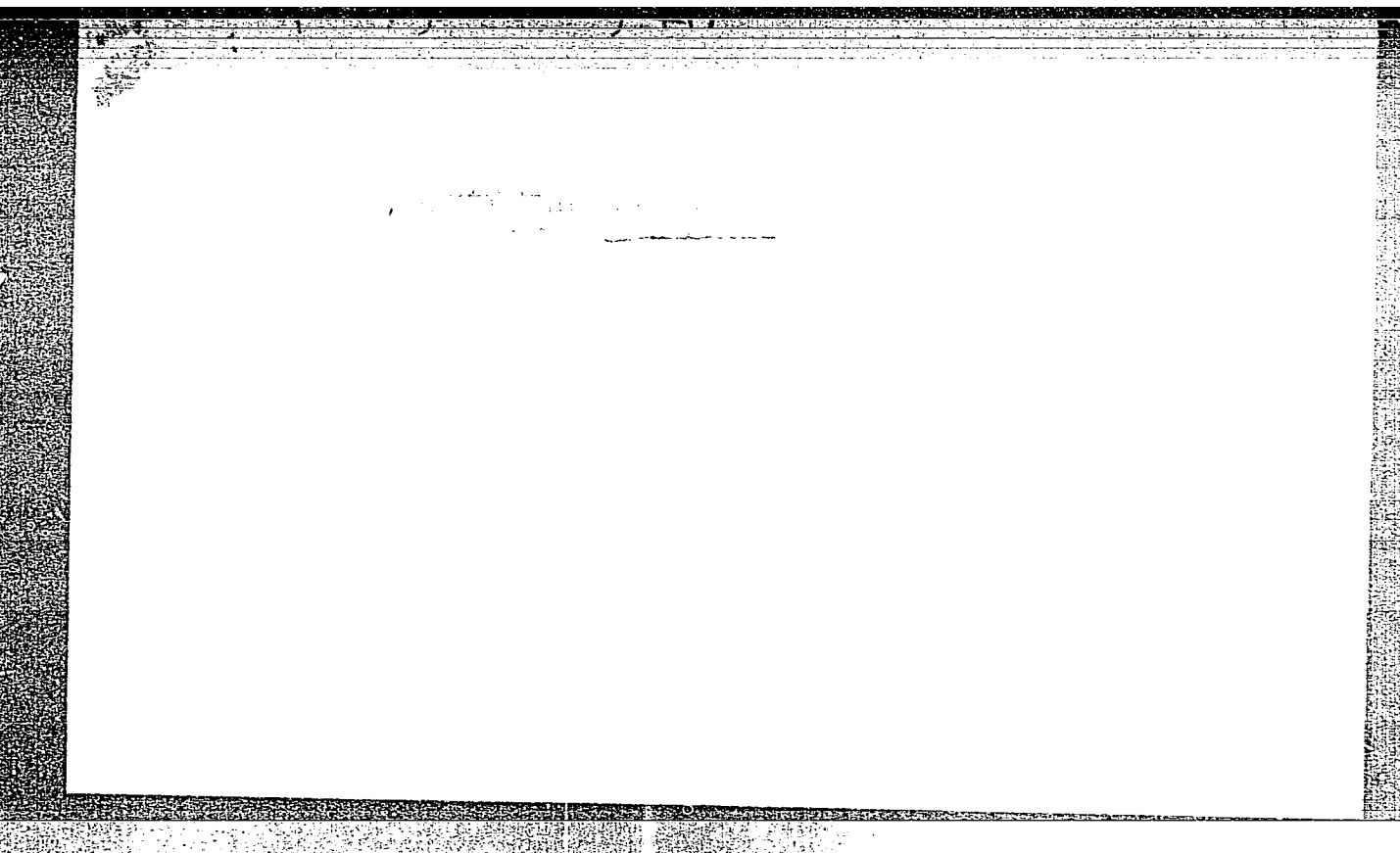
Halina Bojarska-Dahlig: "On Some Nitroderivatives of 2-Amino-3-Pyridinecarboxylic Acid," Roczniki Chemii, Vol 30, No 2, Warsaw, 1956. Published from the Research Laboratory for Synthesis I, Pharmaceutical Institute, Warsaw, 14 Jul 55.

BOJARSKA-DAHLIG, Halina

Halina Bojarska-Dahlig: "Iododerivatives of 3-Hydroxypyridine. III. 5-Methyl-3-Hydroxypyridine and its Iododerivatives," Roczniki Chemii, Vol 30, No 2, Warsaw, 1956. Published from the Research Laboratory for Synthesis I, Pharmaceutical Institute Warsaw, 23 May 55.

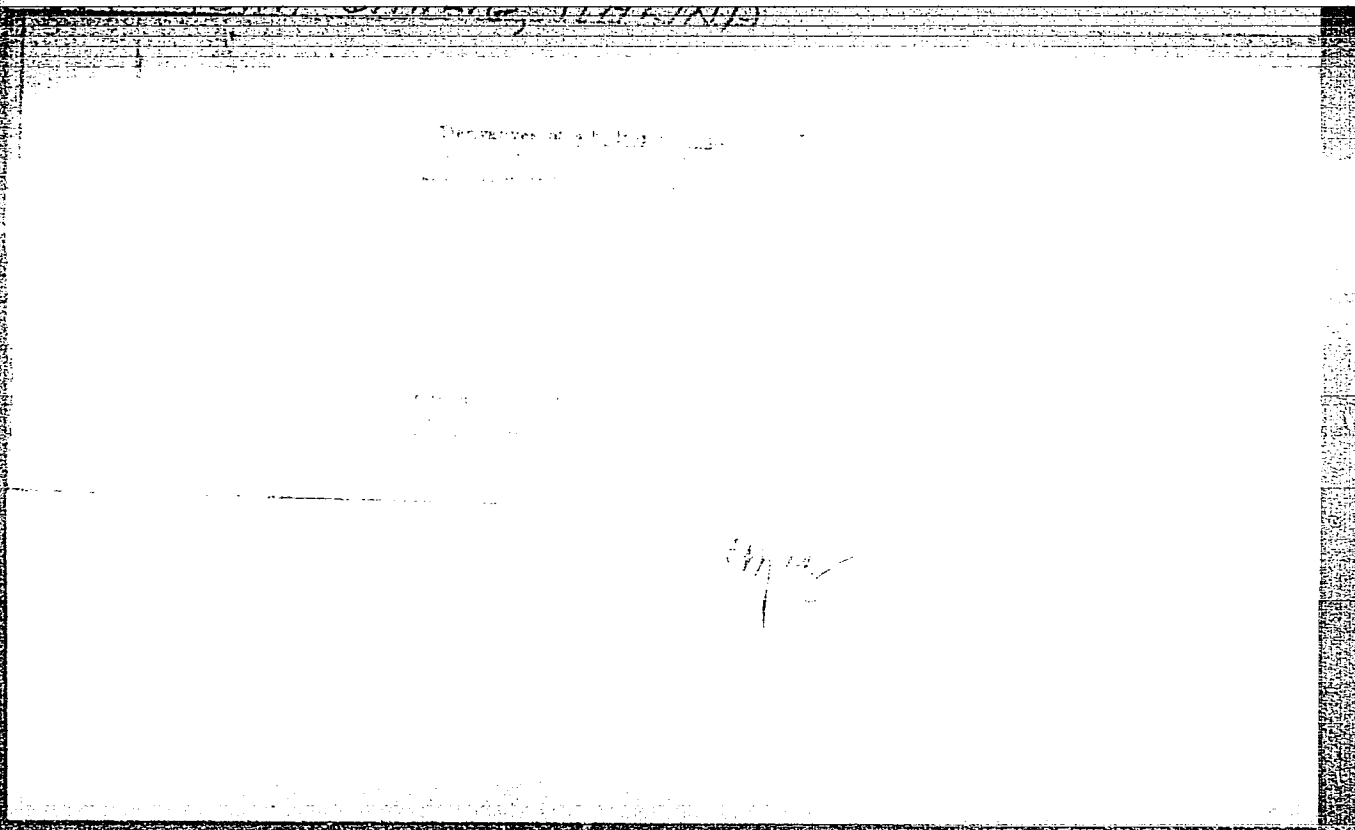
**"APPROVED FOR RELEASE: 06/09/2000**

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**APPROVED FOR RELEASE: 06/09/2000**

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POLAND/Organic Chemistry. Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11325.

with ice; the yield of II is 98.4%, mp 185° (decomp). For proof of structure 0.1 mol II in 230 ml HCl (d = 1.15) is heated 2 hrs at ~100° with 5.5 gms granulated Sn, the solution is decanted, evaporated almost to dryness, the residue is dissolved in 200 water, H<sub>2</sub>S is passed into the solution. The filtrate gives I, yield 43.4%, mp 308-310° (decomp; from water). 0.1 mol II is heated 20 min at 100° with 20 ml conc H<sub>2</sub>SO<sub>4</sub>, the solution is poured into water, and filtered; the residue is dissolved in water, neutralized with NaHCO<sub>3</sub>, and the solution is acidified with conc HCl; III is obtained, which is purified by dissolving it in dilute NaOH and precipitating with HCl (acid) at pH 5, mp 318-319° (decomp); sulfate, mp 233-235° (decomp); nitrate, mp 285° (decomp); the nitrate is hydrolyzed when treated with water. III is

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POLAND/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11325.

decarboxylated by heating (300-305°/2 mm, 30 min) and converted to 2-amino-5-nitropyridine, yield 83.5%, mp 186-187° (purification by distillation). The Ag-salt of III (from 0.01 mol III) is refluxed 6 hrs with 5 ml  $C_2H_5I$  in 20 ml  $C_6H_6$  and the solution is filtered; the filtrate gives the ethyl ester of III, yield 30.8%, mp 193-194° (decomp; from 80% alcohol). Attempts to diazotize III were unsuccessful.

Card : 3/3

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7. Amimation of nicotinic and isonicotinic acids and their amides. Hanna Bojarska-Pablig and P. Naurka-Namirski Inst. of Pharmacy, Warsaw. *Russk. Khim. Zh.* 30, 631-2, 1936 (English summary). — Nicotinic acid, 2.0 g. in 100% (English summary). — Nicotinic acid, 2.0 g. in 25% suspended in paraffin oil and heated 2 hrs. at 100° with 7.5 g. NaOH, given after dil. with water and acidified with 5% HCl, and treatment with concd.  $HNO_3$ , 1.1 g. (20% aq. solution) gives 0.5 g. of 2,6-diaminopyridine (lit. m. 223° decomposed from water). — Isonicotinic acid (lit. m. 223° decomposed from water) on neutralization with alkali gives 2,6-diaminopyridine (lit. m. 223°). Nicotinic acid amide under the same conditions gives 44-24% I, whereas isonicotinic acid and its amide give 50% and 68-12% I, resp.

BOJARSKA-DAHLIG, H.

P. Nantka-Mamirski and H. Bojarska-Dahlig: "Studies on 4-Hydroxy-3-Pyridinecarboxylic Acid Derivatives. 4-Chloro-3-Pyridinecarboxylic Acid Hydrochloride. "Roczniki Chemii, Vol 30, No 2, Warsaw, 1956. Published from the Research Laboratory of Synthesis I, Pharmaceutical Institute, Warsaw, 14 Jul 55.

BOJARSKA-DAHLIG, HALINA

Halina Bojarska-Dahlig and Pawel Mantka-Mamirski: "On Amimation of Nicotinic, Isonicotinic Acids and Their Amides, "Roczniki Chemii", Vol. 30, No 2, Warsaw, 1956. Published from the Research Laboratory of Synthesis I, Pharmaceutical Institute, Warsaw, 14 Jul 56.

1011050A-1011050B, 1011050C

Halina Bojarska-Dehlig and Pawel Hanke-Majewski: "Studies on the Chemistry of 4-Hydroxy-2-pyridine Derivatives. Part II. On Alkylation of 4-Hydroxypyridine with Sodium Amide. "Roczniki Chemii, Vol 30, No 2, Warsaw, 1955. Published from the research Laboratory of Synthesis I, Pharmaceutical Institute, Warsaw, 20 Apr 55.

POLAND/Organic Chemistry. Synthetic Organic Chemistry G

Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11840

Author : Bojarska-Dahlig H., Nantka-Namirski P.

Inst : Not given

Title : Concerning the Independent Amination of Nicotinic and Isonicotinic Acids and Their Amides.

Orig Pub: Roczn. chem., 1956, 30, No. 2, 621-622

Abstract: On heating (4 hours, 200°) 0.05 mol of nicotinic (I) or isonicotinic (II) acids or their amides (Ia and IIa, respectively) with 0.2 mol of  $\text{NaNH}_2$ , 2,6-diaminopyridine (III) is formed, separated from the reactive mass by the addition of 50 ml of water, extracted by ether and precipitated by  $\text{NH}_4\text{O}_3$  (d, 1.4) in the form of  $\text{III} \cdot \text{NH}_4\text{O}_3$  (IIIa); melting point, 223° (decomp.);

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BOJARSKA - DAHLIG, H. ~~SECRET~~

G-2

, POLAND/Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref. Zhur.-Khimiya, No II, 1958, 36219.

Author : Bojarska - Dahlig, Swirska.

Inst : Not given.

Title : 6-Methyl-3,5 - Diiodine - 2- Pyridon - N - Acetic Acid.

Orig Pub: Acta polon. pharmac., 1957, 15, No 4, 267-273.

Abstract: A method of synthesizing 6-methyl-3,5-diiodine-2-pyridon-N-acetic acid (I) was developed. I and its salt in  $(\text{HOCH}_2\text{CH}_2)_2\text{NH}$  (Ia) may be employed for the diagnostic purposes in the roentgenology. For the white mice the LD min. corresponds to 0.4gr/kgr for I and 1.0 gr/kgr for Ia. As it follows from the comparison of toxicities, I and its analogues without a  $\text{CH}_3$  group in the "6" position, that the introduction of a  $\text{CH}_3$  group into the position 2 or 6 of the pyridine ring increases the physio-

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POLAND/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Ref: Zhur.-Khimiya, No II, 1958, 36219.

logical activity of a compound. To a solution containing 0.05 mals of 6-methyl-2-oxypyridine in 100 cc of water and 14.5 gr. of crystalline  $\text{Na}_2\text{CO}_3$  is added gradually a solution containing 0.205  $\text{I}_2$  and 26 gr. KI in 50 cc of water (in 10 minutes time and at 100°C). The mixture is maintained at 100 C for 1 hour followed by saturation with  $\text{SO}_2$  and 10-20 hour standing. The obtained 6-methyl 3,5-diiodine-2-oxypyridine (II) comprises a yield of 99.8% and has a melting point of 240-245°C (alc.). To a solution containing 0.01 mals 6-methyl-2-aminopyridine in 20cc of glacial acetic acid is added (at 80°C) a solution containing 0.2 mals Cl I in 10 cc of glacial acetic acid followed by boiling for 4 hours. After the mixture is cooled to 0°C, 20 cc of  $(\text{CH}_2\text{Cl})_2$  is added. 6-methyl-3,5-diiodine-2-aminopyridine (III) is formed

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POLAND/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Ref. Zhur.-Khimiya, No II, 1958, 36219.

after standing for 20 hours at 0 C. Its yield is 37%, melting point is 145-146° (determined from glacial acetic acid, then from diluted alcohol). From a mixture of ethylacetate with  $C_5H_5N$ , III crystallizes with 1 mol of  $C_5H_5N$  forming a compound of 216-217° melting point. The removal of nitrogen from 0.01 mols III is conducted at 4-5°C, using 20cc of 20%  $H_2SO_4$  + 1gr.  $NaNO_2$  in 4cc of water. After subsequent addition of 30cc of boiling water and heating up to 100°C, II is obtained yielding 51.2%. To a solution containing 0.04 mols II in 96cc of 5% NaOH is added at 50°C, 0.08 mols of  $ClCH_2COOH$ . The mixture is maintained at 100°C for 10 hours, followed by the addition of 5% NaOH in small portions measured with the formation of a precipitate, 48cc in total, and by the neutralization with HCl. From the precipitate (suspended

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POLAND/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Ref. Zhur-Khimiya, No II, 1958, 36219.

in water and treated with  $\text{NaHCO}_3$ ) 39.6% of II and with 223-224° C melting point is obtained. A solution containing 0.02 mols Na in 100cc of absolute alcohol and 100cc absolute  $\text{C}_6\text{H}_6$ , 0.02 mols II, 0.025 mols  $\text{ClCH}_2\text{COOC}_2\text{H}_5$  is boiled for 15 hours. After removal of solvents 50cc of 5% NaOH is added to the residue, after heating up to 40°C, ethyl ether I is obtained. Its yield is 63.8% and melting point is 205-205.5° (from  $\text{C}_2\text{H}_5\text{N}$ -Water at 1:1). When saponified with 25% KOH it yields 64.1% of I. I a is obtained from 0.001 mols of I in 200cc of boiling alcohol containing 0.01 mols of  $(\text{HOC}_2\text{H}_4)_2\text{NH}$ . This reaction yields 80.5% of 182-183°C melting point Ia.

Card : 4/4

POLAND/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Ref Zhur-Khim., No 2, 1959, 4717.

Author : Bojarska-Dahlig, H. and Swirska, A.

Inst :

Title : On the Possibility of Synthesizing 3,5-diiodo-4-pyridylhydroxyacetic Acid an Isomer of 3,5-diiodo-4-pyridonyl-N-acetic Acid.

Orig Pub: Acta Polon Pharmac, 15, No 6, 457-458 (1957) (in Polish)

Abstract: When 9.08 gms of the Ag salt of 3,5-diiodo-4-pyridone (prepared by treating a solution of 3,5-diiodo-4-hydroxypyridine with a stoichiometric amount of 5% NaOH in the presence of 25% NH<sub>4</sub>OH [sic] followed by treatment with an excess of AgNO<sub>3</sub>; yield 93-2%) is refluxed for 20 hrs with 4.26 gms CH<sub>2</sub>ClCOOC<sub>2</sub>H<sub>5</sub> in 150 ml xylene, only the

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POLAND/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Ref Zhur-Khim., No 2, 1959, 4717.

ethyl ester of 3,5-diiodo-4-pyridyl-N-acetic acid (I) is obtained, yield 15%, mp 178-179° (from dil alc); when the reaction is carried out in pyridine (usual temperature, several hrs) the product again is I, yield 78.6%. I has been identified by comparison with known samples of I obtained by the etherification of 3,5-diiodo-4-pyridyl-N-acetic acid (II) by refluxing (5 hrs) with alcohol in the presence of conc H<sub>2</sub>SO<sub>4</sub> and by the saponification of I with 5% NaOH (reflux for 5 hrs) to give II. -- L. Ya.

Card : 2/2

Country	: POLAND	G
Category	: Organic Chemistry. Synthetic Organic Chemistry	
Abs. Jour	: Ref Zhur - Khim., No 5, 1959,	No. 15397
Author	: Bojarska-Dahlig, H.	
Institut.	: -	
Title	: Contribution to the Study of 3,5-Diiodo Derivatives of $\alpha$ -Aminopyridine	
Orig. Pub.	: Roczn. chem., 1957, 31, No 3, 1041-1045	
Abstract	: In order to obtain new roentgenodiagnostic agents, 3,5-I <sub>2</sub> -2,6-(NH <sub>2</sub> ) <sub>2</sub> C <sub>5</sub> HN (I) and some related compounds were synthesized. Hydrolysis of I led only to 3,5-(HO) <sub>2</sub> -2,6-(NH <sub>2</sub> ) <sub>2</sub> C <sub>5</sub> HN (II), instead of the expected 3,5-I <sub>2</sub> -2-NH <sub>2</sub> -6-HOC <sub>5</sub> HN (III). Attempts to obtain III by simple iodizing of 2-NH <sub>2</sub> -6-HOC <sub>5</sub> H <sub>3</sub> N (IV) were not successful. By hydrolysis of 2,6-(NH <sub>2</sub> ) <sub>2</sub> C <sub>5</sub> H <sub>3</sub> N (V) [nitrate (N), m.p. 214-216.5° (decomposition; from	
Card:	1/5	
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Category	:		
Abs. Jour	:	Ref Zhur - Khim., No 5, 1959,	No. 15397
Author	:		
Institut.	:		
Title	:		
Orig. Pub.	:		
Abstract cont'd.	:	water)] with 10% HCl, according to a method described earlier (pat. USA 1,863,676), IV is obtained, m.p. 201.5-202° (from aqueous acetone); N, m.p. 197-198.5° (from water); hydrochloride (HC), m.p. 172.5-174° (decomposition; from alcohol-acetone); picrate (P), m.p. 182-182.5° (from alcohol). 0.06 mole of ClCH <sub>2</sub> COOH is added to 0.05 mole of IV and 0.12 mole of KOH in 30 ml. of water, heated for 1.5 hours at about 100°, acidified with HCl up to a pH	
Card:	:	2/5	

Country	:	G
Category	:	
Doc. Jour	:	Ref Zhur - Khim., No 5, 1959, No. 15397
Author	:	
Institut.	:	
Title	:	
Orig. Pub.	:	
Abstract cont'd.	:	of about 5.5, and 2-amino-6-pyridone-N-acetic acid is separated out, with yield of about 30%, m.p. 218-221° (decomposition); HC, m.p. 199.5-200.5° (decomposition; from alcohol-acetone). 1.1 moles of I <sub>2</sub> and 140 g. of KI in 230 ml. of water are added to 0.5 mole of V in 300 ml. of water during one hour, and mixed for seven hours; after 12 hours, 40 ml. of 40% NaOH (up to a pH of about 7) are added, mixed for one hour at about 20°, and 72% of unpurified I is
Cards:	:	3/5
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Country : G  
Category :  
Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15397  
Author :  
Institut. :  
Title :  
Orig. Pub. :  
Abstract : obtained; 110 g. of precipitate, 150 ml. of  
cont'd. water and 75 ml. of concentrated HCl are mixed,  
and cooled to 0°; the precipitate of HC of I  
is washed with water and alcohol, dissolved in  
pyridine, purified with carbon, and I is pre-  
cipitated with water, m.p. 211-211.5 (from py-  
ridine-alcohol); P, m.p. 215° (decomposition;  
from acetone). 0.01 mole of I and 85 ml. of 10%  
HCl are boiled for three hours, evaporated at  
about 100°, 20 ml. of water are added, NaHCO<sub>3</sub>  
Card: 4/5



Country	:		G
Category	:		
Obs. Jour	:	Ref Zhur - Khim., No 5, 1955,	No. 15397
Author	:		
Institut.	:		
Title	:		
Orig. Pub.	:		
Abstract cont'd.	:	: is added and II is obtained, with yield of 94%, m.p. 175-176° (from water or benzene-acetone). 0.01 mole of HC of I is boiled for three hours with 70 ml. of 10% HCl, and 82% of II is sepa- rated out.-- V. Skorodumov	
Card:	:	5/5	
G - 45			

BOJARSKA-DAHIG, H.; GRUDA, I.

Studies on the chemistry of 4-hydroxypyridine derivatives. V. On amination of 4-hydroxy-2-methylpyridine with sodium amide. p. 505

ROCZNIKI CHEMII. (Polska Akademia Nauk) Warszawa, Poland, Vol. 33, no. 2, 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 9, September 1959  
Uncl.

BOJARSKA-DAHLIG, Halina; NANTKA-NAMIRSKI, Pawel

Studies on the chemistry of radiopaque compounds. II. On 2,4,6-tri-iodo-3-(aminopyridylazo)-benzoic acids. Roczniki chemii 34 no.1:189-195 '60. (EEAI 10:9)

1. Department of Synthesis, Institute of Pharmacy, Warsaw.

(Radiation) (Iodine) (Benzoic acid) (Amino group)  
(Pyridyl group) (Azo compounds)

BOJARSKA-DAHLIG, Halina

~~SURNAME (AKA NAME) / Other Names~~

Country: Poland

Academic Degrees: [not given]

Affiliation: Department of Synthesis I of the Pharmaceutical Institute (Zaklad  
Syntezy I Instytutu Farmaceutycznego), Warsaw

Source: Warsaw, Farmacja Polska, Vol XVII, No 12, 25 June 1961, pp 238-241

Data: "Investigations of the Pharmaceutical Institute in Warsaw in  
the Area of the Synthesis of Shadow-Producing Substances for  
X-Ray Diagnosis."

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P/016/62/000/011/002/006  
D218/D307

AUTHORS: Bojarska-Dahlig, Halina, Docent, Doctor,  
Engineer (Director, see Association) and  
Kurzepa, Stanisław, Doctor (Director,  
see Association)

TITLE: Monoamine oxidase and its inhibitors. I

PERIODICAL: Wiadomości Chemiczne, no. 11, 1962, 659-669

TEXT: It has been established that changes in the equilibrium and level of chemical transmitters, such as adrenaline, noradrenaline, acetylcholine, histamine and sero tonin, are similar to the  $\gamma$  - aminobutyric acid in that they give rise to clear disturbances in psychic states. Studies of the various processes involved in this phenomenon, which modifies the concentration of neurohormones, have led to the discovery of enzymes affecting the level of neurohormones, including monoamine oxidase (MAO). The authors review published work on the physiological significance of MAO together with the pharmacological and clinical

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Monoamine oxidase ...

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D218/D307

action of its inhibitors. The review covers the period up to 1960. The properties of MAO are discussed with special reference to the chemistry of MAO inhibitors and the structure-activity relationships. The final section of this paper reviews recently used drugs inducing MAO inhibition. There are 2 tables and 34 non-Soviet-bloc references.

ASSOCIATION:

Bojarska-Dahlig: Zakład Syntezy I w Instytucie Farmaceutycznym w Warszawie (Department of Synthesis I of the Pharmaceutical Institute, Warsaw); Kurzepa: Zakład Farmakologii w Instytucie Matki i Dziecka w Warszawie (Department of Pharmacology at the Mother and Child Institute, Warsaw) and Pracownia Neurofarmakologiczna w Instytucie Farmaceutycznym w Warszawie (Neuropharmacological Laboratory of the Pharmaceutical Institute, Warsaw)

SUBMITTED:

May 12, 1962

Card 2/2

BOJARSKA-DAHLIG, Halina

Studies on monoamine oxidase inhibitors. I. Isonicotinic acid derivatives. Acta pol. pharm. 19 no.3:269-272 '62.

1. Z Zakladu Syntezy I Instytutu Farmaceutycznego w Warszawie.  
(MONOAMINE OXIDASE INHIBITORS chem)  
(NICOTINIC ACID rel cpds)

BOJARSKA-DAHLIG, Halina

Studies on monoamine oxidase inhibitors. II. 1-Benzyl-2-(1-phenyl-5-methyl-1,2,3-triazocarbonyl)-hydrazine. Acta pol. pharm. 19 no.3: 273-274 '62.

1. Z Zakladu Syntezy I Instytutu Farmaceutycznego w Warszawie.  
(MONOAMINE OXIDASE INHIBITORS chem)



BOJAREKA-DAHLIG, Halina

Hydrazine derivatives of arylacetic acid. Acta pol. pharm. 19 no.3:  
275-276 '62.

1. Z Zakladu Syntezy I Instytutu Farmaceutycznego w Warszawie.  
(HYDRAZINES chem) (ACETATES chem)

BOJARSKA-DAHLIG, Halina; SWIRSKA, Alicja

Studies on the chemistry of radiopaque compounds. VII.  
Hydrazides of some iodo-substituted cyclic carboxylic acids.  
Rocz chemii 36 no.3:535-538 '62.

1. Department of Synthesis I, Institute of Pharmacy, Warsaw.

BOJARSKA-DAHLIG, Halina, doc dr inz.; KURZEPA, Stanislaw, dr, adiunkt

Monoamine oxidase and its inhibitors. I. Wiad chem 16 no.11:  
659-669 N '62.

1. Kierownik Zakladu Syntezy I, Instytut Farmaceutyczny,  
Warszawa (for Bojarska-Dahlig); 2. Kierownik Zakladu  
Farmakologii, Instytut Matki i Dziecka, Warszawa i Kierownik  
Pracowni Neurofarmakologicznej, Instytut Farmaceutyczny,  
Warszawa (for Kurzepa).

27.3500

P/016/62/000/012/002/003  
D461/D307

AUTHORS: Bojarska-Dahlig, Halina, Docent, Doctor, Engineer,  
and Kurzepa, Stanislaw, Doctor, Director (see Association)

TITLE: Monoamine oxidase and its inhibitors. II

PERIODICAL: Wiadomosci Chemiczne, no. 12, 1962, 741-757

TEXT: A review paper covering the period up to 1961. The subject matter is considered under the following headings: (1) hydrazine derivatives, (2) harman derivatives, (3) 2-phenylcyclopropylamine, (4) indole derivatives, (5) examples of MAO inhibitors belonging to other groups of chemical compounds, and (6) MAO inhibitors used in therapeutics. It is noted that MAO inhibitors are being studied (since 1960) at the Pharmaceutical Institute in Warsaw. This work is concerned with (1) the synthesis of new enzyme inhibitors, and (2) the biological activity of these preparations. There are 5 tables and 37 references: 1 Soviet-bloc and 36 non-Soviet-bloc. √B

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Monoamine oxidase ...

P/016/62/000/012/002/003  
D461/D307

ASSOCIATION:      Bojarska-Dahlig: Zakład Syntezy I w Instytucie Farmaceutycznym w Warszawie (Department of Synthesis I of the Pharmaceutical Institute, Warsaw); Kurzepa: Zakład Farmakologii w Instytucie Matki i Dziecka w Warszawie (Department of Pharmacology at the Mother and Child Institute, Warsaw) and Pracownia Neurofarmakologiczna w Instytucie Farmaceutycznym w Warszawie (Neuropharmacological Laboratory of the Pharmaceutical Institute, Warsaw)

JB

Card 2/2

S/081/62/000/024/042/073  
B101/B186

27.1.470

AUTHORS: Bojarska-Dahlig, Halina, Swirska, Alicja

TITLE: Study of X-ray-opaque compounds. VII. Hydrazides of some iodo-substituted cyclic carboxylic acids

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 333, abstract 24Zh202 (Roczn.chem., v.36, no.3, 1962, 535-538 [Pol.; summary in Eng.] )

TEXT: An excess of  $N_2H_4 \cdot H_2O$  reacting with  $RCOOC_2H_5$  (I) in alcohol yielded  $RCONHNH_2$  (II). R in II, the gross formula, and m.p. in  $^{\circ}C$  given:

3,4,5-triiodophenyl,  $C_7H_5ON_2I_3$ , 246 - 248 (decomp.; from diluted  $C_5H_5N$ );  
3,5-diiodo-4-acetyl aminophenyl,  $C_9H_9O_2N_3I_2$ , 252<sup>s</sup> - 254 (from 80% Alcohol);  
3,5-diiodo-2-acetyl aminophenyl,  $C_9H_9O_2N_3I_2$ , 252. - 252.5 (from benzene);  
3,5-diiodo-4-pyridino-N-methylene,  $C_7H_7O_2N_3I_2$ , 247 - 248 (decomp.; from diluted  $C_5H_5N$ ). It was impossible to produce II from I (R = 2,4,6-tri-iodo-3-acetyl aminophenyl) (Ia). A former method (USA patent 2611786,

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Study of X-ray-opaque compounds. ...

S/081/62/000/024/042/073  
B101/B186

1952) is applied to produce Ia,  $C_{11}H_{10}O_3NI_3$ , m.p. 207.2 - 208°C (from aqueous alcqhol). Substance I is obtained from Ia (R = 2,4,6-triiodo-3-aminophenyl),  $C_9H_8O_2NI_3$ , m.p. 126-127°C (from aqueous alcohol). Reaction between alcohol and  $H_2SO_4$  with the corresponding acids yields I (R = 3,5-diiodo-4-acetyl aminophenyl),  $C_{11}H_{11}O_3NI_2$ , m.p. 199.5-200°C (from alcohol), and I (R = 3,5-diiodo-2-acetyl aminophenyl),  $C_{11}H_{11}O_3NI_2$ , m.p. 179-180°C (from alcohol). All melting points are corrected. Communication VI see abstract 24Zh190. [Abstracter's note: Complete translation.]

Card 2/2

BOJARSKA-DAHLIG, Halina

Studies on compounds with radiopaque properties. IX. Roczniki chemii 36 no.5:971-972 '62.

1. I Department of Synthesis, Institute of Pharmacy, Warsaw.



RACZKA, Alicja; SWIRSKA, Alicja; BOJARSKA-DAHLIG, Halina

Studies on the synthesis of 1-(m-aminophenyl)-2-pyridone  
and similar derivatives with a possible psychotropic effect.  
Acta pol. pharm. 20 no.2:155-167 '63.

1. Z Zakładu Syntezy I Instytutu Farmaceutycznego w Warszawie  
Kierownik Zakładu: doc. dr H. Bojarska-Dahlig.  
(PYRIDINES) (CHEMISTRY, PHARMACEUTICAL)  
(PSYCHOPHARMACOLOGY)

BOJARSKA-DAHLIG, Halina

Studies on monoamine oxidase inhibitors. III. Hydrazine derivatives of some arylacetic acids. Acta pol. pharm. 20 no.4:293-302 '63.

1. Z Zakladu Syntezy I Instytutu Farmaceutycznego w Warszawie  
Kierownik Zakladu: doc dr H. Bojarska-Dahlig.  
(MONOAMINE OXIDASE INHIBITORS) (ACETATES)  
(HYDRAZINES) (CHEMISTRY, PHARMACEUTICAL)

BOJARSKA-LAHIG, Halina; NIFMOJFWSKA-JARYKOWICZ, Barbara

Studies on monamine oxidase inhibitors. IV. 4-Aminophenylacetic acid hydrazide derivatives. Acta Pol. pharm. 20 no.6:423-426 '63.

i. Z Zakładu Syntezy i Instytutu Farmaceutycznego w Warszawie (Bierowniki Zakład: doc. dr H. Bojarska-Lahlig).

BOJARSKA-LAHIG, Helina; MISTYK, Janina

Studies on monoamine oxidase inhibitors. V. Benzic acid  
hydrazide derivatives. Acta Pol. pharm. 21 no.1:105-108 '64.

1. Z Zakladu Syntezy I Instytutu Farmaceutycznego w Warszawie  
(kierowniki Prof. dr R. Bojarska-Lahlig).

BOJARSKA-DAHLIG, Halina

Studies on monoamine oxidase inhibitors. VI. Hydrazine derivatives of diphenylacetic acid. Acta Pol. pharm. 21 no.4:337-341 '64

1. Z Zakladu Syntezy I Instytutu Farmaceutycznego w Warszawie (Kierownik Zakladu: prof. dr. H. Bojarska-Dahlig.).

RACZKA, Alicja; BOJARSKA-DAHLIG, Halina

N-(beta-phenylisopropyl)-2-pyridone. Acta Pol. pharm. 22 no.3:  
285-286 '65.

1. Z Zakładu Syntezy I Instytutu Farmaceutycznego w Warszawie  
(Kierownik: prof. dr. H. Bojarska-Dahlig).

BOJARSKA-DAHLLIG, Janina

Studies on the chemistry of radiopaque compounds. Pt.8.  
Rocz chemii 36 no.4:767-769 '62.

1. I Department of Synthesis, Institute of Pharmacy, Institute  
of Pharmacy, Warsaw.

1950 Therapeutic use of bromide



BOJARSKI, A.

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Aug. 1956. DRUGOWNICTWO, Warszawa, Poland.

SOURCE: East European Accessions List (EEAL), Vol. 6, No. 4--April 1957

BOJARSKI, A

The building of embankments with bulldozers. p. 8.  
(Drogownictwo, Poland, Vol. 12, no. 1, Jan. 1957.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

BOJARSKI, B.

On the index problem for systems of singular integral equations.  
Bul Ac Pol mat 11 no. 10:653-655 '63.

1. Department of Mathematics, University, Warsaw, and Department of Mathematics, University of Chicago, Ill. Presented by A. Zygmund.

COUNTRY : POLAND  
 CATEGORY : Physical Chemistry. Molecule. Chemical Bond.  
 Molecular Spectra  
 REF. JOUR. : RZKhim., No. 1 1960, No.136  
 AUTHOR : Bojarski, G.  
 INST. : POLISH AS  
 TITLE : Note on the Theory of the Selfdepolarization  
 of Photoluminescence of Solutions  
 ORIG. PUB. : Bull. Acad. polon. sci. Ser. sci. math., astron.  
 et phys., 1958, 6, No 11, 719-725, LVI  
 ABSTRACT : From the general expression for the dependence  
 of the degree of fluorescence polarization upon  
 the number of molecules in 1 cm<sup>3</sup> of solution,  
 which was given earlier by Jablonski (RZKhim.,  
 No 20, 1956, Nos 64544, 64545), a simpler for-  
 mula was derived. This formula concords well  
 with the experimental results of Feofilov and  
 Svoshnikov (Zh. eksperim. i teor. fiz., 1940,  
 10, 1372). The divergence between theory and

CARD: 1/2

B-5

BOJARSKI, C.

Distr: 4E3d

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Determination of the critical molecule distance for concentration depolarization of fluorescence. C. Bojarski and A. Kawaky (Tech. Hochschule, Gdansk, Poland). *Ann. Physik* (7), 5, 31-4 (1980).—A simple formula is derived for calcg. the crit. mol. distance  $R_c$ , introduced by Förster (C.A. 43, 5867d) for describing the phenomenon of concn. depolarization of fluorescence.  $R_c$  characterizes a state for which the emission probability is equal to the transition probability of excitation energy. If, from the exptl. depolarization curve the concn.  $n'$  (in mol./cc.) for which the degree of polarization is  $P = 3P_0/(6-P_0)$  ( $P_0$  = the max. degree of polarization of the fluorescence in dil. soln.), then  $R_c = \sqrt[3]{n'}$ . The following  $R_c$  values (in Å.) were found: fluoresceine (rhodamine B) in glycerol, 55 (83); anthracene in Plexiglas, 32. R. Nitsche.

24.3500

Z/019/62/019/012/001/001  
D006/D102

AUTHOR: Bojarski, G.

TITLE: Effect of self-extinction on concentration depolarization of photoluminescence of stable solutions

PERIODICAL: Přehled technické a hospodářské literatury. Energetika a elektrotechnika, v. 19, no. 12, 1962, 525, abstract # E 62-7066, Ann. Phys., Leipzig, 8, no. 7, 1961, 402-411

TEXT: Taking into consideration Yablonski's theory on concentration depolarization of released radiation, an expression was derived for the dependence of polarization degree on pigment concentration which at the same time considers the self-extinction effect in the particular case that no chemical reactions take place in the fluorescent solution. The result was compared with experimental results of Feofilov and Sveshnikov. The original article contains 3 figures and 1 table. [Abstracter's note: Complete translation.]

Card 1/1

BOJARSKI, G.

Intermolecular energy migration and concentrational  
depolarization of photoluminescence in rigid solutions.  
Acta physica Pol 22 no.3:211-223 S '62.

1. 1st Department of Physics, Technical University, Gdansk.

ACCESSION NR: AP4024330

P/0045/64/025/002/0179/0185

AUTHOR: Bojarski, C.

TITLE: Problem of the critical distance between molecules in the process of excitation energy transfer in luminescent solutions

SOURCE: Acta physica polonica, v. 25, no. 2, 1964, 179-185

TOPIC TAGS: critical intermolecular distance, excitation energy transfer, luminescent solution, photoluminescence emission, radiationless transfer, polarization, intermolecular energy migration

ABSTRACT: The author computes the ratio between Jablonski's radius of the active sphere and Forster's critical distance, defined as the distance between two luminescent molecules at which the probability of photoluminescence emission is the same as that of radiationless transfer of excitation energy, on the basis of Jablonski's concentrational depolarization theory of photoluminescence with a layer model of luminescent center (Acta physica polonica, 14, (1955) 295; 17, (1958) 481); and compares his results with the experimental results of Szalay and Sarkany. He finds this ratio, as determined experimentally for the layer model of the center, in good agreement with the

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ACCESSION NR: AP4024330

value calculated by him, and concludes that, while the experimental shapes of the dependence of photoluminescence polarization are already highly satisfactory within the framework of a model with active sphere, the interpretation of the experimental results within the framework of the theory with the layer model yields a more correct picture of intermolecular energy migration and points, moreover, to a critical distance in actual energy transfer that is much smaller than the value resulting from the simplified version of the theory. Orig. art. has: 1 figures and 20 equations

ASSOCIATION: Politechnika Gdanska, Katedra Fizyki I (Gdansk Polytechnic, Chair of Physics I)

SUBMITTED: 06Jul63

DATE ACQ: 15Apr64

ENCL: 00

SUB CODE: NS

NO REF SOV: 000

OTHER: 010

Card 2/2

I. 00838-67 IJP(c)

ACC NM AP6034783

SOURCE CODE: PO/0045/66/030/002/0169/0185

AUTHOR: Bojarski, C.

ORG: First Chair of Physics, Technical University, Gdansk (Katedra Fizyki I, Politechnika Gdanska)

TITLE: Resonance quenching of solid solution luminescence

SOURCE: Acta physica polonica, v. 30, no. s, 1966, 169-185

TOPIC TAGS: solid solution, luminescence, luminescence quenching, luminescence quencher, luminescence resonance quenching, dipole dipole interaction, resonance excitation energy, solid solution luminescence/ Forster quenching theory, Bojarski quenching theory

ABSTRACT: The theory of the quenching of luminescence by foreign absorbing substances in the case of solid solution, and dipole-dipole interaction between the molecules of the sensitizer S and those of the acceptor has been generalized, using a multilayer model of the luminescence center. Fluctuations of the quencher's molecule concentration, as well as the probability dependence of the resonance excitation energy transfer  $P_{SA}(dd)$  on mutual orientation of the transition moments of interacting molecules have been taken into account. The applicability

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ACC NR: AP6034783

of a previous, simplified assumption about the independence of  $P_{SA}(dd)$  from the distance of quenchers from a given layer of the luminescence center (Bojarski, 1960) has been reduced. The quantitative relation between the critical distance  $R_1$  appearing in Forster's theory and the constant  $r(1)$  introduced into the present quenching theory have been established. An analytic expression for the quantum yield of the sensitizer has been obtained and compared with the experimental results of other authors. Orig. art. has: 3 figures, 2 tables, and 40 formulas. [Based on author's abstract]

SUB CODE: 20/ SUBM DATE: 15Sep55/ ORIG REF: 007/ SOV REF: 005/  
OTH REF: 015

Card 2/2

POLAND

BOJARSKI, Jan and ZULINSKA, Wanda, Chair for the Hygiene of Animal Products (Katedra Higieny Produktow Zwierzeczych), Veterinary Division (Wydzial Weterynaryjny), WSR [Wyzsza Szkola Rolnicza, Higher School of Agriculture] in Lublin (Director: Docent, Dr. Edmund PROST)

"The Value of Some Methods for the Differentiation of the Types of Mycobacterium Tuberculosis."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 19, No 3, Mar 63, pp 158-162.

Abstract: [Authors' English summary modified] Tests carried out with known 20 strains of Myc. tuberculosis, 14 strains of Myc. bovis, 12 strains of Myc. avium, and 7 strains of saprophytic bacteria revealed that identification was a) Most effective with biological tests on animals, b) Least effective with microscopic differentiation, c) Solid culture media are effective for Myc. tuberculosis, d) Petraghi's medium is satisfactory for differentiation of Myc. avium, and that e) niacin test (Peknice) can serve as an auxiliary test for Myc. tuberculosis. The 21 refs are Polish in 7 cases, and English or German in the rest.

1/1

Quenching of Photoluminescence of  
Solutions

P/045/60/019/006/002/012  
B011/B059

The results of this theory are in very good agreement with experiments.  
There are 3 figures and 11 references: 1 Soviet, 4 German, and 6 Polish.

ASSOCIATION: I Department of Physics, Gdańsk Technical University  
(First Department of Physics, Gdańsk Technical University)

SUBMITTED: February 12, 1960 (initially) and March 18, 1960 (after  
revision)

Card 2/2

BOJARSKI, Jacek; KAHL, Wladyslaw; MELZACKA, Mirosława

N-acyl derivatives of barbiturates. Pt. 1. Roczniki chemii 36  
no.7/8:1259-1262 '62.

1. Department of Organic Chemistry, Medical Academy, Krakow.

X

MOSZEW, J.; <sup>Jacek</sup>BOJARSKI, J.; INASINSKI, A.

Addition reactions in the group of Schiff's bases. Addition of aromatic derivatives of carbodiimide. I. Bul chim PAN 8 no.8: 417-418 '60. (EEAI 10:9/10)

1. Katedra Chemii Organicznej, Uniwersytet Jagiellonski, Krakow  
Laboratorium Nr. 6. Instytut Syntezy Organicznej, PAN. Presented by T. Urbanski.

(Chemical reaction) (Schiff bases) (Aromatic compounds)  
(Carbodiimide)

MOSZEW, Jan: BOJARSKI, Jacek; INASINSKI, Antoni

Addition reactions in Schiff's bases. III. Addition of aromatic derivatives of carbodiimide. Roczniki chemii 34 no.3/4:1177-1179 '60.  
(EEAI 10:3)

1. Katedra Chemii Organicznej Uniwersytetu Jagiellonskiego,  
Krakow i Pracownia nr. 6 Zakladu Syntezy Organicznej Polskiej  
Akademii Nauk, Krakow.  
(Carbodiimide) (Aromatic compounds) (Schiff bases)



BOJARSKI, Jacek; KAHL, Wladyslaw

N-acyl derivatives of barbiturates. Pt. 2. Roczniki chemii 37  
no.5:589-590 '63.

1. Department of Organic Chemistry, School of Medicine, Krakow.

POLAND

BOJARSKI, Jan, Chair of Sanitation of Animal Products of the Veterinary College of the Agricultural University, Lublin (Katedra Higieny Produktow Zwierzeczych Wydz. Wet. WSR) Head (Kierownik) Prof. Dr. Edmund PROST

"Pathogenic Microorganisms in the Slaughterhouse Pipes. Microorganisms of Salmonella Type"

Lublin, Medycyna Weterynaryjna, Vol 22, No 11, Nov 66; p. 670-671

Abstract [English summary modified]: From September 1965 to February 1966, 560 samples of drain-water effluent from the Lublin slaughterhouse revealed 3 samples to be contaminated with Salmonella: 2 strains of Salmonella dublin and 1 of Salmonella choleraesuis kuzendorf. This is much better than comparable data for several other European slaughterhouses. 2 tables, 1 Polish, 8 German references, including 2 theses.

BOJARSKI, Jerzey

Basic problems of standardization and model making in furniture.  
production. Przem drzew 13 no.2:11-14 '52.

BOJARSKI, J.

"Problems of quarterly executive planning of production in the furniture industry."  
p. 10. (Przemysl Drzewny, Vol. 4, no. 5, May 53, Warszawa)

SO: Monthly List of East European Accessions, Vol 3 No 6 Library of Congress Jun 54 Uncl

BOJARSKI, J.

"Group Planning in the Furniture Industry." p.9  
(PRZEMYSŁ DRZEWNY Vol. 4, no. 8, Aug. 1953 Warszawa, Poland)

SO: Monthly List of East European Accessions, IC, Vol. 3, no. 5, May 1954/Uncl.

POJANSKI, J.

POJANSKI, J. Organizational problems of the furniture industry. p. 312.

Vol. 6, No. 11, Nov. 1955.

PRZEMYSŁ DREWNY.

TECHNOLOGY

Warszawa, Poland

So: East European Accession, Vol. 5, No. 5, May 1956

15(8)

PHASE I BOOK EXPLOITATION

POL/3268

Bojarski, J., Master of Engineering; J. Brzeziński, Master of Engineering; I. Dobosz, Master of Engineering; A. Dobraczyński, Master of Engineering; Z. Hertz, Master of Engineering; J. Iskra, Master of Engineering; F. Kacprzak, Master of Engineering; Z. Kowalski, Master of Engineering; W. Łaskawski, Master of Engineering; J. Łoziński, Master of Engineering; J. Pochwalski, Docent, Doctor; T. Wiecheć, Master of Engineering, T. Wiśniewski, Master of Engineering, I. Zakrzewski, Master of Engineering; W. Zieliński, Master of Engineering; and H. Zowall, Scientific Coordinator, Master in Science

Co i jak produkować z tworzyw sztucznych (What Can Be Produced From Plastics and How) Warsaw, Państwowe Wyd-wo Techniczne, 1959. 413 p. (Series: Tworzywa sztuczne przetwórstwo i zastosowanie) Errata slip inserted. 5,253 copies printed.

Coordinator of the Work: J. Brzeziński, Master of Engineering;  
Reviewer: St. Chudzyński, Master of Engineering; Scientific Ed.  
of Publishing House: St. Pietras, Master of Engineering and

Card 1/8

What Can be Produced (Cont.)

POL/3268

K. Radziwiłł, Master in Science, Tech. Ed.: A. Urbanicki.

**PURPOSE:** This book is intended for chemists and equipment designers in the plastics industry. It will be of interest to students of the plastics industry.

**COVERAGE:** This book, one of a series on the plastics industry, is divided into two parts. The first part discusses the classification of plastics, methods of production, and the most common uses of the end-products. The basic properties of individual plastics are given in tabular form along with testing methods. The second part contains a general discussion of all known methods of processing plastics, thermoplastics, and thermosetting plastics. The design, construction, and parts of processing machines are described. The techniques of dyeing, metallization, machining, and welding of plastics are also treated. A listing of terminology used in the plastics industry is included. A table includes the trade names and producers of major plastics. No references are given.

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What Can Be Produced (Cont.)

POL/3268

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